DOCUMENT RESUME

ED 145 702 FL 008 964

AUTHOR Linnarud, Moira
TITLE Lexis in Free Production: An Analysis of the Lexical Texture of Swedish Students' Written Work. Swedish-English Contrastive Studies, Report No. 6.
INSTITUTION Lund Univ. (Sweden). Dept. of English.
PUB DATE 75
NOTE 41p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Communicative Competence (Languages); *Composition (Literary); Content Analysis; Contrastive Linguistics; *English (Second Language); Error Analysis (Language); *Essays; Essay Tests; Evaluation Criteria; Evaluation Methods; Language Instruction; Language Research; Language Skills; Language Usage; Native Speakers; Scoring; *Second Language Learning; *Student Evaluation; *Vocabulary; Writing Skills; Written Language
IDENTIFIERS Error Correction (Language); *Swedish

ABSTRACT

The compositions or essay tests of second language learners are difficult to mark and evaluate. It has been suggested that the only way to achieve objectivity is to abolish all criteria except formal correctness, as it is the only one that can be measured and statistically evaluated. Attempts have been made to establish other criteria. A varied vocabulary ought to be as important as formal correctness, which on its own is quite inadequate. In this study, in an attempt to measure success, the lexical content of essays written in English by Swedish students has been examined. An attempt is made to apply certain theoretical methods of evaluation to the essays and to use the results for two main purposes: (1) to compare the lexical texture of Swedish students' work with that of native speakers' writing on the same subject, and (2) to see to what extent spontaneous evaluation by a native speaker can be supported by the theoretical results. The quality of the essay was then put into relation to other factors, the length of the essay and the number and predominant types of error. (Author/CLK)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Jan Svartvik,
English Dept, Lund Univ.
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

ED145702

DEPARTMENT OF ENGLISH

LUND UNIVERSITY

SWEDISH – ENGLISH CONTRASTIVE STUDIES

Report No 6

Lexis in Free Production:
An Analysis of the Lexical Texture of Swedish Students' Written Work

by
Moira Linnarud

FL00 9764

LUND UNIVERSITY

Swedish-English Contrastive Studies

Lexis in Free Production: An Analysis of the Lexical Texture of Swedish Students' Written Work

by

Moira Linnarud

Report No 6 1975

Department of English
Lund University

Helgonabacken 14
S-223 62 Lund, Sweden

CONTENTS

		Page
1	INTRODUCTION AND AIMS	1
2	MATERIAL AND METHODS	4
	2.1 Material	4
	2.2 Methods	6
	2.2.1 Lexical Words	6
	2.2.2 Lexical Density	7
	2.2.3 Lexical Variation	8
	2.2.4 Errors	8
	2.3 Limitations	9
	2.4 Essay Evaluators	10
3	RESULTS	11
	3.1 Lexical Density	11
	3.1.1 Lexical density excluding error words	11
	3.1.2 Lexical density including error words	14
	3.2 Evaluation	15
	3.2.1 Limitations of a Lexical Density Count	15
	3.2.2 Lexical Variation	19
	3.2.3 Agreement with Spontaneous Evaluation	21
	3.2.4 Lengths of Essays	26
4	ERROR ANALYSIS	28
5	CONCLUSIONS	30
	NOTES	33
	REFERENCES	34

1 INTRODUCTION AND AIMS

"Should we count errors or measure success?" (Enkvist 1973:16) is a valid question in judging the progress of language learners. Does formal correctness ensure success in communication? There is something in addition to errors which is felt instinctively to be different in the work of Swedish students compared to that of native speakers. It is of interest to study variations in lexical content and see if they can be expressed in definite terms, which may explain this difference.

Composition or essay tests are difficult to mark and evaluate. It has been suggested that the only way to achieve objectivity is to abolish all criteria except formal correctness, as it is the only one that can be measured and statistically evaluated (Lindberg 1969:106). Attempts have been made to establish other criteria. A varied vocabulary ought to be as important as formal correctness which on its own is quite inadequate (Henrysson et al 1973:16)

In Gothenburg an investigation showed that the structure of a sentence was less important for communication than the semantic aspects (Olsson 1973: 159). A "tolerance study" to discover the tolerance level of native speakers to various types of error has been carried out at the UMT Project at the

Institute of Education in Malmö. Their results will give a guide to a more satisfactory ranking of mistakes from the point of view of correction, but a warning is given that the native speakers' high tolerance level must not mean an acceptance of error in the students' work (Lindell 1973: 96-97).

Nickel suggests that the native speaker's greater tolerance of error than the non-native speaker's may be due to their greater knowledge of the language and its varieties (1973:27).

The importance of reliability in essay evaluation is stressed by Marton (1968:7). He states that it can be increased by using an increased number of evaluators and makes the point that low reliability in marking is an expensive business. Those failed by mistake are slowed up, and those passed by mistake are probably not capable of passing other exams.

In an attempt to "measure success" the lexical content of essays written in English by Swedish students has been examined. The syntax of the same essays will be studied at a later date, on the basis of Levenston's theory of over-indulgence and under-representation (1971:115 ff).

An attempt is made to apply certain theoretical methods of evaluation to the essays and to use the results for two main purposes:

(a) to compare the lexical texture of Swedish students' work with that of native speakers writing on the same subject;

(b) to see to what extent a spontaneous evaluation by a native speaker can be supported by the theoretical results.

The quality the essay was judged to have was then put into relation to other factors:

(a) The length of the essay

(b) The number and predominant types of error.

2 MATERIAL AND METHODS

2.1 MATERIAL

36 essays written by Swedish students were examined. All the students were studying a one-year course (AB1) in English at the University of Lund, but, as it was their first term, they had not yet received any formal teaching in essay-writing.

The same subject given to all was "Sir, I protest ...". The students were asked to write a letter to a newspapaper, protesting about any topic which interested them. This subject is not ideal for the purposes of this investigation as the degree of personal involvement of the writers varies and the range of topics was large. They include serious protests about present-day problems side by side with facetious treatments of fictitious subjects. A more restrictive subject, confining all the writers to the same field of vocabulary and style would have given a better basis for comparison.

No instructions were given limiting the length of the essay, to avoid the distracting effect of word-counting. It is also of interest to see if the length of an essay correlates in any way with its quality in general. Table 1 shows the distribution of the lengths. They vary between 126 and

573 words. The average number is 321. (See page 27 for the relation of length to quality.)

In addition, three essays on the same subject written by native speakers also studying the AB1 course were examined. They were not written on the same occasion as the Swedish students' essays and were limited in length by instruction to 120 words.

Actual lengths: Native speaker 1: 111 words
" " 2: 131 "
" " 3: 206 "

Table 1.LENGTHS OF ESSAYS (Swedish students only)

The essays were divided into groups according to the number of words they contained. The mean value for the group is shown on the histogram. The vertical axis gives the number of students.

No of Words	Mean Value
534 - 584	559
483 - 533	508
432 - 482	457
381 - 431	406
330 - 380	355
279 - 329	304
228 - 278	253
177 - 227	202
126 - 176	151

2.2 METHODS

2.2.1 Lexical Words

The distinction between lexical and function words is at times difficult to make. Sinclair (1966:412) defines a lexical item as "a formal item (at least one morpheme long) whose pattern of occurrence can be described in terms of a uniquely ordered series of other lexical items occurring in its environment". Thavenius gives a survey of the various criteria which can be used to divide vocabulary into two classes, and concludes that the distinction is a useful one, although it is to a certain extent arbitrary (1972:17-41).

In this investigation, the basis for the distinction between words with lexical properties and others is the discussion in Quirk et al (1972:44-47) on closed-system and open-class items. Nouns, adjectives and verbs, apart from auxiliaries have been counted as lexical words. Verbs with a double function such as BE and HAVE have been included in the count when they appear in their lexical function. Adverbs such as easily, ending in -ly and corresponding to adjectives, have also been regarded as lexical words.

2.2.2 Lexical Density

The basic method used is that of counting the lexical density of the texts. This is a term used by Ure (1971:445) to describe the percentage of lexical words in the total number of words in any given text, either written or spoken.

The term "Sinndichte" or semantic density has been used by Arens to describe the same ratio (1964: 21 ff). He found that the ratio of lexical words to function words was lower in speech and easily-read texts than in literary prose, poetry and difficult texts. Thavenius (1972:56) expresses doubts as to the validity of these results, as they are based on inadequate samples of the material.

In this study a word is taken to mean an orthographic word. One lexical item such as turn up is regarded as two words, turn a lexical word and up a function word. Contracted forms such as haven't and hyphenated forms such as baby-sitter are regarded as one word.

The total number of orthographic words (OW) and the total number of lexical words (LW) are put into relation to each other to establish lexical density (LD):

$$\frac{LW}{OW} \times \frac{100}{1} = LD$$

2.2.3 Lexical Variation

By lexical variation is meant the percentage of lexical types (different lexical words) in the total number of lexical tokens (occurrences of lexical words), thus giving a measure of the lexical variety of a text.[1]

The total number of tokens and the total number of types are put into relation to each other to establish lexical variation (LV):

$$\frac{TY}{TO} \times \frac{100}{1} = LV$$

2.2.4 Errors

In spite of an attempt to arrive at a positive evaluation of written work, the question of error must be taken into consideration. For the purposes of this investigation no distinction is made between mistakes, due to faulty performance, and error, due to defects in linguistic competence (Corder 1967: 166-167), but the term error is used to cover the whole range of deviances from the correct form.

Two LD counts were made. In the first, no words involved in error were included. In this way, subjective decisions as to what to include or disregard from case to case were avoided. One exception has been made to this. Contracted forms such

as it´s have not been regarded as errors, although marked as such by the corrector, as they seemed to be in keeping with the relatively informal style of the texts. In the second count, all words were included regardless of error, to see the extent of the difference between the density actually gained and the density intended by the students.

2.3 LIMITATIONS

This investigation must be regarded as a pilot study on a very limited material, to test various applications of the above methods and see if they warrant further studies on a larger scale.

The Swedish students whose work was investigated for this study form a heterogeneous group.

The number of native speakers involved is obviously too small to be the basis for a true comparison between Swedish students´ and native speakers´ use of lexis. The ability to write creatively is not possessed by all native speakers of a language (Lado 1970:248).[2] All three in this investigation may have high creative ability, thus setting an unnecessarily high standard for comparison. The reverse could also be true. Yet, in spite of these factors, the results are still of interest and may show a tendency which can be investigated later with a large and varied group of native speakers.

2.4 ESSAY EVALUATORS

The native speaker evaluation used here in the comparison with the lexical density and lexical variation counts is that of an academically trained but non-teaching person. The decision not to use a teacher of English as a foreign language for the comparison was made to avoid the dominance of error as the basis for the evaluation.

3 RESULTS

3.1 LEXICAL DENSITY

3.1.1 Lexical density excluding error words.

Ure´s study was carried out on 34 spoken and 30 written texts in English by native speakers (1971: 445-449). She found that all but two of the spoken texts nad an LD of under 40%, while all the written but two had a density of 40% or more. The spoken texts with high LD were similar to most of the written ones, in that the speakers were not interrupted or diverted by questions, comments or gestures (feedback) which caused them to adjust their language. The written text with the lowest LD was from the "Problem Page" of a women´s magazine, where readers´ questions were answered, feedback thus being present. All texts with an LD of 36% or under had feedback. This leads us to the presumption that the LD counts for the essays in this investigation, if they had been written by native speakers, would all lie above 36% and probably show a majority over 40%.

The results of LD count 1 (excluding errors) are as follows:

Lowest LD	: 30.36%
Highest LD	: 47.15%
Average LD	: 38.51%
Median LD	: 38.66%
LD 36% or under	: 33.30% of the students
LD below 40%	: 72.20% of the students
LD 37-39%	: 38.90% of the students

The students' figures fell below the expected result for native speakers.

The biggest group is the 37-39% category,which crossed the feedback (36%) line but failed to reach the level for the majority of written texts in Ure's investigation. In fact only 27.8% of the students reached this level. These results must be given the reservation that some differences may exist in the classification of lexical words in the two investigations.[3] However, the results can be directly compared with those of the three native speakers writing on the same subject. The results are shown graphically in Fig 1.

LD-Native speaker 1:	50.45%
" " " 2:	46.56%
" " " 3:	48.54%

Only one Swedish student had an LD higher than the lowest level gained by a native speaker in this study.

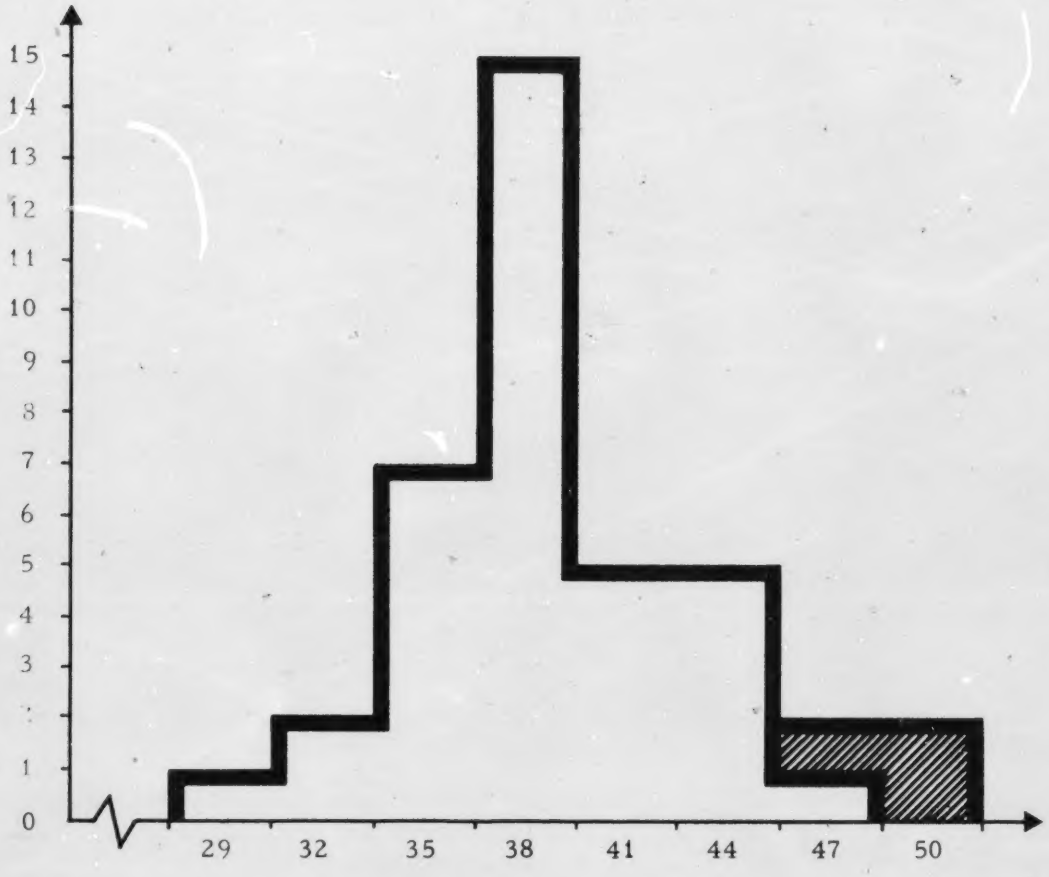
Fig 1. DISTRIBUTION OF LEXICAL DENSITIES
EXCLUDING ERROR WORDS

The LD:s are divided into groups as follows. The mean value for each group is shown on the histogram.

LD	MEAN VALUE
49 - 51	50
46 - 48	47
43 - 45	44
40 - 42	41
37 - 39	38
34 - 36	35
31 - 33	32
28 - 30	29

Average LD: 38.51%

Median LD: 38.66%



Native speakers

3.1.2 Lexical density including error words

The question of error crops up again. The native speakers' work in this investigation contained little or no error and there was therefore no loss of density on that account. The Swedish students' texts were counted again to see if the results were higher when all words, even errors were included. This count shows the LD intended by the student in contrast to the LD actually gained. The results of LD count 2 (including errors) are as follows:

Lowest LD : 30.40% (LD count 1: 30.36%)

Highest LD: 46.96% (" " ": 47.15%)

Average LD: 39.33% (" " ": 38.51%)

Median LD : 38.90% (" " ": 38.66%)

LD 36% or under: 16.60% of the students
(LD count 1: 33.30%)

LD below 40%: 55.60% of the students
(LD count 1: 72.20%)

LD 37-39%: 38.88% of the students
(LD count 1: 38.90%)

The highest LD in count 2 is lower than in count 1, due to the fact that the errors contained in the essay with the highest figure involved a high percentage of function words. Their inclusion in count 2 caused a drop in density.

Details of the change in distribution in the groups are as follows:

From LD 36% or under to LD 37-39% : 6 students
" " 37-39% to LD 36% or under: 1 student
" " " to LD 40% or over : 5 students

The group with an LD of 40% or over is now the biggest with 44.44% of the texts. This result is nearer the predicted result for native speakers for written texts in general, without feedback, but only one more text reached the level of the lowest of the three native speakers on this particular subject. The results are shown graphically in Fig 2

Native speaker 2: 46.56%
Highest LDs for Swedish students: 46.96%
: 46.83%

The figures gained in count 2 are not used in the rest of the investigation, as the comparisons of LD were based on what was actually correct.

3.2 EVALUATION

3.2.1 Limitations of a lexical density count

Lexical density alone is not a sufficient measure of the relative quality of the texts, due to two factors:

1) The number of errors.
2) The lack of variation in the lexis of certain texts.

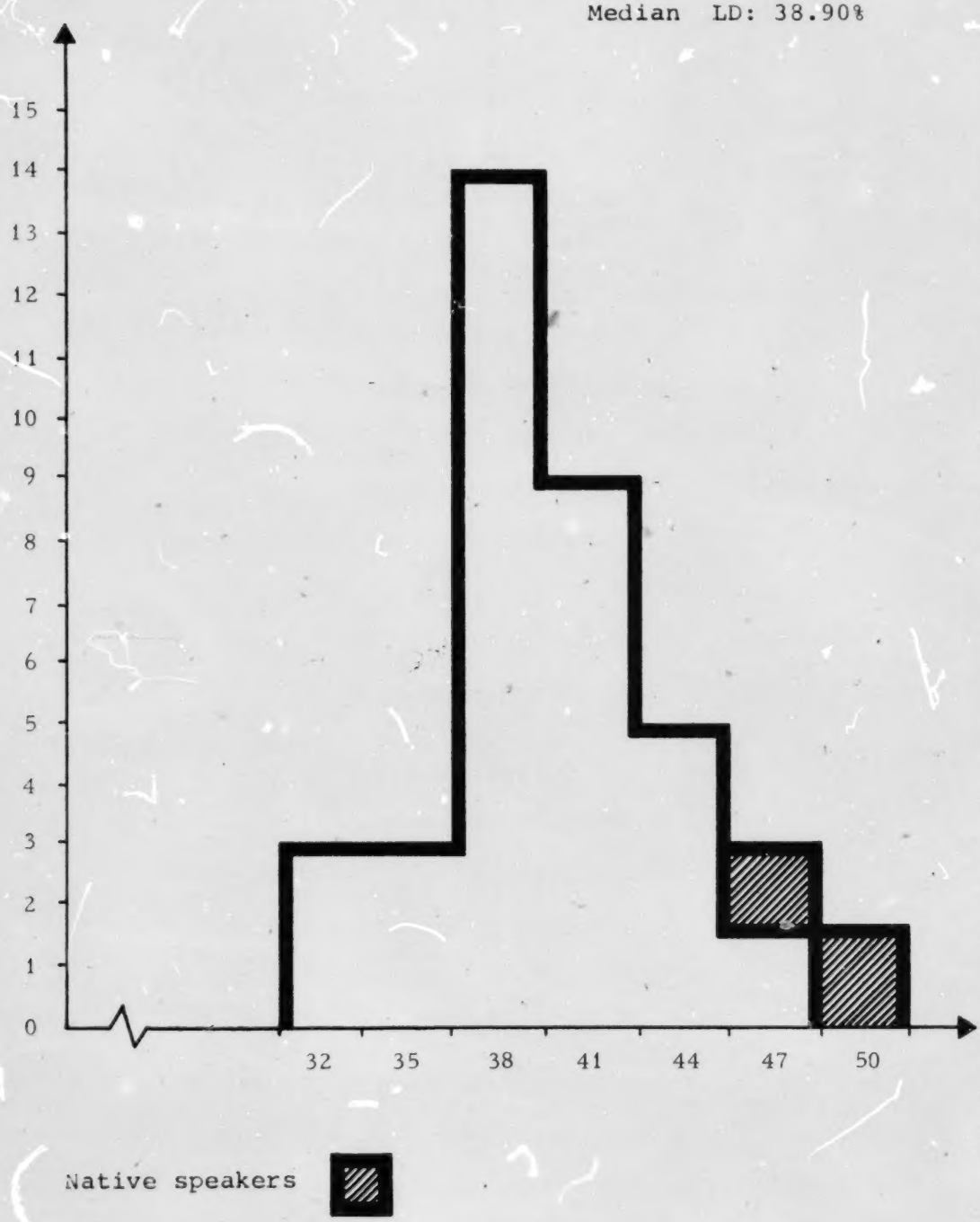
An essay is supposed to show the students' ability to write English. A certain amount of accuracy must therefore be a basic requirement, before other evaluations are made. According to a lecturer in the English Department of the University of Lund, three serious grammatical errors, type tense, concord or of similar gravity, are automatically regarded as reasons for failing an essay. This standard is presumably modified from case to case, but this is immaterial for the investiga-

Fig 2. DISTRIBUTION OF LEXICAL DENSITIES, INCLUDING ERROR WORDS

The groups of LDs are divided as for Fig 2.

Average LD: 39.33%

Median LD: 38.90%



tion. Judged by it 15 of the 36 would be failed due to error. These 15 will in future be referred to as "error eliminates". The results for LD count 1 (excluding errors) for error eliminates is as follow:

Lowest LD : 30.36%

Highest LD: 44.42%

LD 36% or under: 40.00% (6 essays)

LD 40% or over : 13.33% (2 essays)

See Fig 3.

The results for LD count 2 (including errors) for error eliminates:

Lowest LD : 30.40%

Highest LD: 44.12%

LD 36% or under: 13.33% (2 essays)

LD 40% or over : 33.33% (5 essays)

See Fig 4.

Details of the change in distribution in the groups are as follows:

From LD 36% or under to LD 37-39%: 4 students

From LD 37-39% to LD 40% or over : 3 students

A comparison of the LD figures for all 36 essays with those of the error eliminates alone gives the following results:

Average LD for all essays	:38.51%	Count 1
" " " error eliminates only	:37.17%	Count 1
" " " all essays	:39.33%	Count 2
" " " error eliminates only	:38.26%	Count 2

Fig 3. ERROR ELIMINATES. LD (EXCLUDING ERRORS)

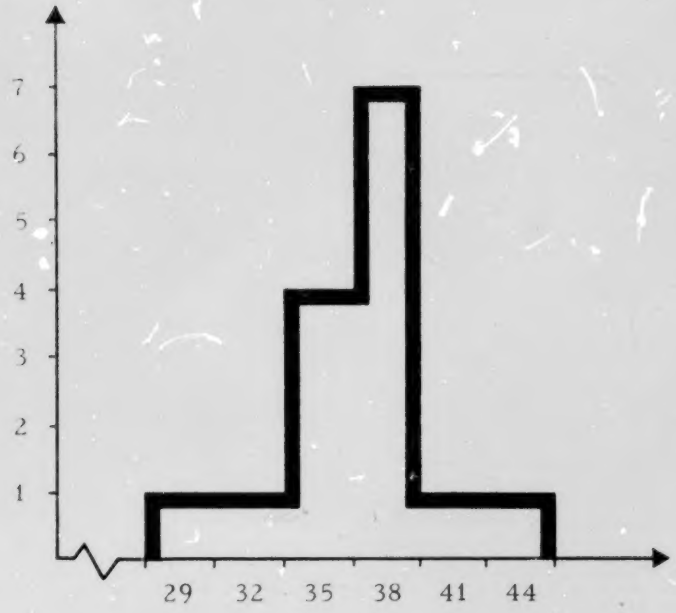
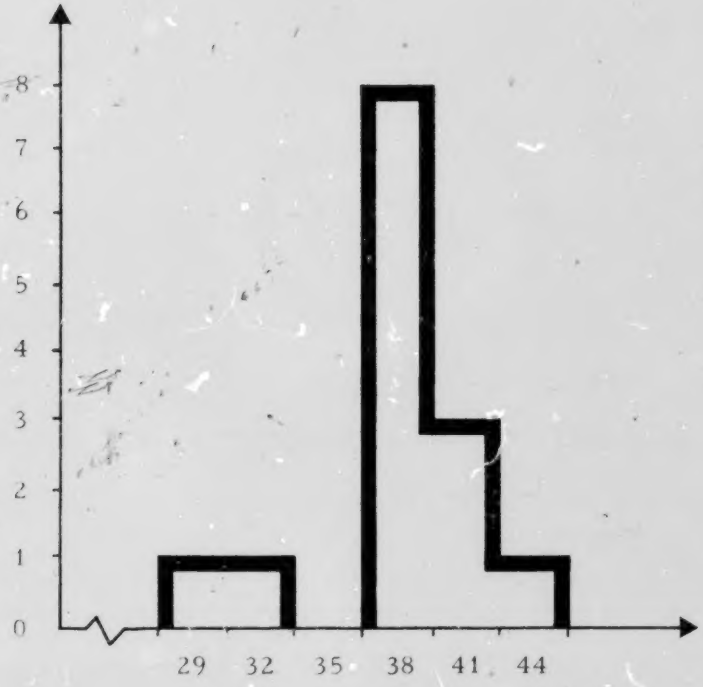


Fig 4. ERROR ELIMINATES. LD (INCLUDING ERRORS)



The groups of LDs are divided as for Fig 1.

It has been speculated that a high rate of error could in some cases be due to the writer over-reaching himself in an attempt to write an above-average essay. An error-free writer has, on the other hand, played safe, using only constructions and vocabulary of a simple nature, mainly to avoid mistakes. The figures above show that the error eliminates had a comparatively low LD count, suggesting that they were weak in both grammar and vocabulary. This would not support the hypotheses that over-ambition is the reason for a high error rate in these cases.

3.2.2 Lexical variation

The lexical variation count gives a valuable check on the LD. In certain cases the language may seem poor, in spite of a high density. The high value may have been gained by a large-scale repetition of a limited vocabulary.

As the essays are of different lengths, the figures giving the LV for each are not strictly comparable, a high figure being easier to gain in a short essay than in a long (cf Kučera & Francis, 1970:356). The longer the essay, the more difficult it is for the writer to avoid repeating himself. In an attempt to eliminate this factor, the essays were divided into groups according to the number of lexical words in each. The average LV was counted for each group and

each member of the group was judged low, average or high on variation in relation to this figure. The three native speakers are not included in the group average count.

Lowest number of lexical words: 41

Highest number of lexical words: 224

No in group	No of lexical words	Av LV	Median LV
A: 8 essays	41-86	79.06%	79.43%
B: 14 "	87-132	70.96%	71.50%
C: 6 "	133-178	73.64%	74.59%
D: 8 "	179-224	67.90%	67.90%

The figures for group C break the downward trend. Three of the 6 essays have an LV of over 78%. All three native speakers (N S) show a very high LV.

N S 1: 96.43% (No of lexical words: 56)

" 2: 90.16% (" " " " : 61)

" 3: 86.00% (" " " " :100)

As expected the native speaker's use of the language is much more varied than the Swedish student's. The highest LV for a Swede in group A was 83.33%, where N S 1 and 2 had 96.43% and 90.16%. The highest LV for a Swede in group B, where N S 3 gained 86.00%, was 87.64%. The fact that the native speakers were limited in length by instruction, as their essays were not written on the same occasion as the Swedish students, places them in the two groups with the lowest number

of lexical words. This means that their LV counts are being compared with those of writers who voluntarily limited their production. If there is in fact a connection between length and quality, the LV counts in these groups may be lower than those which would be gained in a test where all students were limited to a certain length.

The percentage of lexical types which are represented by hapax legomena (words used only once) shows much less variation than the LV count (see Fig 5). Once again the native speakers' figures are higher than those of the Swedish students.

Lowest % hapax legomena: 56.57
Highest% " " : 88.52
Average% " " : 79.05
Median % " " : 80.18
N S 1: 94.54%
N S 2: 89.53%
N S 3: 96.29%

3.2.3 Agreement with spontaneous evaluation

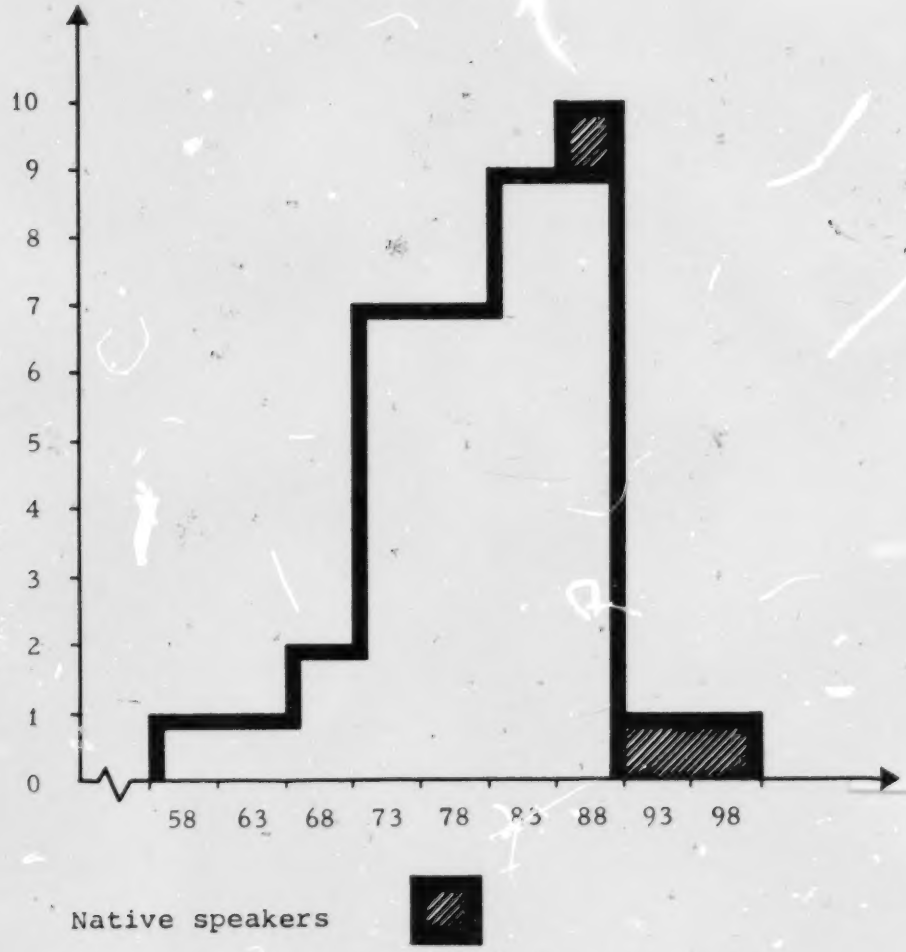
The presumption is now that essays which have both a high LD and a high LV, combined with a lack of error, should make a better impression on the reader than one with a low value in one or both.

Fig 5. HAPAX LEGOMENA

The % of hapax legomena per essay has been divided into groups as follows:

% hapax legomena	mean value
96 - 100	98
91 - 95	93
86 - 90	88
81 - 85	83
76 - 80	78
71 - 75	73
66 - 70	68
61 - 65	63
56 - 60	58

The mean value for each group is shown on the histogram.



The essays were judged by a 3-point scale, by the academically trained non-teaching evaluator.

1: poor (4 essays excluding error eliminates)

2: average (12 essays)

3: good (5 essays)

A distinction is made between error eliminates and essays judged poor due to other reasons, as it is of interest to see if low LD and low LV are sufficient factors without a high error rate, to place an essay in this category.

GROUP 1	LD up to and including 36%	LOW LV
1	+	-
2	+	+
3	+	-
4	-	+

Only one essay in this group has an LD above 36%. The actual figure is 37.97%, but it is in combination with low variation.

GROUP 3	LD above 40%	HIGH LV
1	-	+
2	+	-
3	+	+
4	+	+
5	+	+

Group 3 shows a high LD in each case but one, which is combined with a particularly high LV. In fact,

Table 2. LDs and LVs All Groups

A: Average LV
H: High LV
L: Low LV

GROUP	LD	LV
Error Eliminates	30.36	L
	30.85	H
	33.79	L
	34.66	A
	36.09	L
	36.19	H
	36.86	H
	36.99	H
	38.66	L
	38.87	H
	39.06	A
	39.13	H
	39.47	L
	42.21	L
(Average 37.17%)	44.42	L
Group 1 (poor)	30.83	A
	34.13	L
	36.11	H
(Average 34.76%)	37.97	L (very)
Group 2 (average)	36.25	A
	37.04	H
	37.79	L
	38.00	L
	38.51	H
	38.86	L
	39.18	H
	40.31	A
	41.06	H
	41.14	A
	43.89	H
(Average 39.93%)	47.15	L
Group 3 (good)	38.68	H
	40.00	A
	43.31	H
	43.68	H
(Average 42.12%)	44.95	H

four of the five in this group have LVs well above average. The complete list of figures for all essays can be found in Table 2. It seems as if the dividing line between groups 1 and 2 fairly closely follows the 36% boundary. There is however more confusion between groups 2 and 3. Not all essays with high LD and high LV are judged as "good", but all in group 3 displayed one or both of these features. Similarly all essays in group 1 have either low LD or low LV.

The question arises again of how important error is from the point of view of the reader. This study makes no attempt to answer that question, which has been studied in detail in the previously mentioned work of Lindell (1973:93-96) and Olsson (1973:153-160). Johansson in a general study on the evaluation of errors devotes a section to their effect on communication and identifies as the lowest grade of error that which "... does not affect the comprehensibility of the message and does not cause any irritation in the listener..." (Johansson, 1973:106). The extent to which an error effects communication seems to vary according to the reader's status and purpose. Gorosch (1973:151) in his paper on the assessment of oral performance, found that there were considerable difference between assessments made by teachers and non-teachers.

The 36 essays in this investigation were given to a native speaker with no academic training (non-A) for evaluation, and his results compared with those of the academically trained evaluator (A). The fact that only one evaluator from each category was used limits any general applications of the results. The result was as follows:

	Non-A	A
Total number judged 1 (poor)	15	19
" " " 2 (average)	12	12
" " " 3 (good)	9	5

Non-A was somewhat more generous in his judgement than A. This is especially apparent in four cases of error eliminates. In three of these cases the high rate of error had not affected non-A's evaluation. They were given the marks 3, 3 and 2 and judged to have a good knowledge of English. The fourth was given the mark 2 with the reservation that it was well expressed but contained too many errors in English. In other words, four essays which have been automatically failed by A are quite acceptable from the point of view of communicative value to non-A, who even places two of them in the highest category.

3.2.4 Lengths of essays

The four essays in group 1 were shorter on average than those in groups 2 or 3.

GROUP	AVERAGE NUMBER OF WORDS
1 (poor)	205
2 (average)	349
3 (good)	301

Here again the distinction would appear to divide clearly groups 1 and 2, but groups 2 and 3 have similar figures. Difference in length is not a distinguishing feature of a good essay compared to an average one in this investigation. It is difficult to say as yet whether the short length influenced the reader to give a low evaluation, or whether it is in fact a symptom of a bad essay.

4 ERROR ANALYSIS

Even in an attempt to measure success the temptation arises to count errors. The causes of errors have been debated at length (cf Duškova, 1969:11-36 and Lee, 1968:185-194). Lipińska (1973:10-12) states that error analysis reveals the difficulties in the processes of learning a foreign language rather than the difference between two grammatical systems and comes to the conclusion that errors should be dealt with by psycholinguists and psychologists rather than linguists. The Swedish-English Contrastive Studies (SECS) project at the University of Lund maintains that error analysis is an important factor in establishing the areas of English grammar, lexis and phonology which cause difficulty to Swedish students of English (Svartvik et al, 1973:1), and the results have been put to practical use in Thagg (1973).

The most probable solution to the problems of foreign language teaching will be found by a combination of the contributions of linguists and psychologists, and by paying more attention to the psychology of learning in teacher training (Borger and Seaborne 1971:238)[4]. A complete error analysis was carried out on the 36 essays in this investigation, but only parts of especial interest for the present purpose will be discussed here. The various groups have been examined separately and show the following results:

Table 2. No and Predominant Types of Error. All groups.

GROUP	Average No Errors per Essay	% Lexical Errors	% Spelling Errors
Error eliminates (15 essays)	25	24.35	19.11
Group 1 (poor) (4 essays)	15	28.66	16.00
Group 2 (average) (12 essays)	11	18.05	12.78
Group 3 (good) (5 essays)	8	42.50	10.00
All essays	17	24.76	16.83

Lexical and spelling errors were the commonest category. This agrees with the results of Lindell´s investigation of school childrens´ German free production (1973:93-95), where the categories "choice of word" covered 19% of all errors and "spelling mistakes" 16%. It is surprising that the figures in the two investigations should coincide so closely, as they deal with different languages and writers of different backgrounds.

A look at the figures for the 36 essays shows that the average number of errors per essay decreases successively from error eliminates to group 3. The percentage of lexical errors shows a marked increase in group 3. In other words this group not only had fewer errors per essay, but also a different distribution of error; more lexical and fewer grammatical. The percentage of spelling errors also decreases successively from error eliminates to group 3, and would suggest that, in this investigation, one feature of a poor essay is a high number of spelling errors.

5 CONCLUSIONS

This small scale investigation has shown that part of the difference between the free production of native speakers and foreign learners can be identified in terms of lexical density and lexical variation. It is not simply a matter of different degrees of grammatical correctness. The Swedish students' results in the LD count were lower than predicted on the basis of Ure's investigation of native speakers. They had lower LV than the three native speakers in this investigation. On both counts the native speakers in this study had high results. Their language was richer in lexis and much more varied, which suggests that more stress needs to be placed on the study of vocabulary in teaching English as a foreign language.

Frequency is often the basis for the choice of words for vocabulary lists. Wilkins (1972:114) points out that a frequency list for each type of text would have greater use than one dealing with the global use of language. Thus if it is possible to predict the areas of use the learner is going to require most, it should be possible to teach him the vocabulary with the highest practical value for him. The ideal would be to establish a

"common core" (Quirk et al 1972:13) of vocabulary and syntactic constructions, which can be expanded in specialised areas according to special needs.

Different styles can be regarded as different dialects (Winter 1969:3). LD and LV describe part of the Swedish-English stylistic dialect. The choice of lexis for the present investigation does not imply that function words lack interest. Studies of the use of function words in the style of various authors have been carried out (cf Ringbom 1973, Thavenius 1972) and significant variations have been found. The use of auxiliary verbs in particular may prove an interesting area for investigation as a tendency among Swedish students to avoid the use of auxiliaries has been observed.[5]

It is also evident that the two counts LD and LV do not cover the whole field of lexis. A study based on frequency lists (Forsgren and Lindgren 1967 and Thorén 1967) to determine the level of difficulty of the words used, might explain why all essays with high LD and average or high LV were not judged better than average. The words used may have been too general, without being sufficiently far wrong to be judged as error.

Counting LD and LV is not intended to function as a method of essay evaluation. It is rather

a check to see if other methods of evaluation can be backed up statistically. In this study the theoretical evaluation coincided with the spontaneous, in that all essays judged good had high values in one or other of the counts. Similarly all in the group judged poor had low values in one or both. The results would seem to be more helpful in distinguishing between the poor and average groups than between the average and good.

NOTES

[1] Type/token ratio gives a measure of the same factor. (Kučera and Francis 1970:356).

[2] Tests done with Swedish students in Gothenburg showed that those who achieved poor results in their native language also achieved poor results in English. It was evident that the source language interfered with the target language to a greater extent in their case than in the groups with a better command of Swedish (Stendahl 1972: 117-123).

The source language is that acting as a source of interference and is normally the learner's native language.

"The target language is that in which communication is being attempted; in the case of a learner it is the language he is learning, when he uses it." (Nemser 1971:115).

[3] Ure refers to Halliday 1966 and Sinclair 1966, as the basis for her classification.

[4] For a bibliography on error analysis see Arabski, 1973.

[5] This has been mentioned in conversation by Edström. For a discussion of the problems of Swedish students in connection with tense, aspect and modality, see Edström 1973.

34

REFERENCES

Arabski, J, 1973, "Selected Bibliography on Error Analysis and Related Areas". Errata ed by Svartvik, J, 161-169. Lund.

Arens, H, 1964, Analyse eines Satzes von Thomas Mann. Düsseldorf.

Borger, R and Seaborne, A E M, 1971, The Psychology of Learning. Aylesbury, Bucks.

Corder, S P, 1967, "The Significance of Learner's Errors". Iral, V/4, 161-170.

Duškova, L, 1969, "On Sources of Errors in Foreign Language Learning". Iral, VII/1, 11-36.

Edström, E, 1973, "Tense, Aspect and Modality: Problems in English for Swedish Students". Errata ed by Svartvik, J, 124-133. Lund.

Enkvist, N E, 1973, "Should We Count Errors or Measure Success?" Errata ed by Svartvik, J, 16-23. Lund.

Forsgren, A and Lindgren, G, 1967, 3 500 engelska ord. Stockholm.

Gorosch, M, 1973, "Assessment Intervariability in Testing Oral Performance of Adult Students". Errata ed by Svartvik, J, 145-152. Lund.

Halliday, M A K, 1966, "Lexis as a Linguistic Level". In Memory of J R Firth ed by Bazell, C E, Catford, J C, Halliday, M A K and Robins, R H. London.

Henrysson, I, Persson, G, Shrimpton, N and Shrimpton, P, 1973, Försöksarbete med fri produktion. Mimeo. 1-22.

Johansson, S, 1973, "The Identification and Evaluation of Errors in Foreign Languages: A Functional Approach". Errata ed by Svartvik, J, 102-114. Lund.

Kučera, H and Francis, W N, 1970, Computational Analysis of Present-Day American English. Brown University.

Lado, R, 1970, Language Testing. The Construction and Use of Foreign Language Tests. London.

Lee, W R, 1968, "Thoughts on Contrastive Linguistics in the Context of Language Teaching". Report on the 19th Annual Round Table Meeting on Linguistics and Language Studies. 185-194. Washington DC.

Levenston, E A, 1971, "Over-indulgence and Under-representation - Aspects of Mother-tongue Interference". Papers in Contrastive Linguistics ed by Nickel, G, 115-121. Cambridge.

Lindberg, S, 1969, "National Standard Test Papers in English for Swedish Grammar Schools". Moderna Språk LXIII:2, 105-113.

Lindell, E, 1973, "The Four Pillars: On the Goals of Foreign Language Teaching". Errata ed by Svartvik, J, 90-101. Lund.

Lipińska, M, 1973, "On Justification of Contrastive Studies". Paper read at the 5th Polish Conference on Contrastive Linguistics. Mimeo.

Marton, F, 1968, Prov och prestationer: Några resultat. Universitetspedagogiska utredningen, Projekt MUP, rapport 2. Göteborgs Universitet.

Nemser, W, 1971, "Approximative Systems of Foreign Language Learners". Iral, IX/2:115-123.

Nickel, G, 1973, "Aspects of Error Evaluation and Grading". Errata ed by Svartvik, J, 24-28. Lund.

Olsson, M, 1973, "The Effects of Different Types of Errors in the Communication Situation". Errata ed by Svartvik, J, 153-160. Lund.

Quirk, R, Greenbaum, S, Leech, G and Svartvik, J, 1972, A Grammar of Contemporary English. London.

Ringbom, H, 1973, George Orwell as Essayist. A Stylistic Study. Åbo.

Sinclair, J McH, 1966, "Beginning the Study of Lexis". In Memory of J R Firth ed by Bazell, C E, Catford, J C, Halliday, M A K and Robins, R H. London.

Stendahl, C, 1972, "Proficiency in Swedish and English as Shown by Swedish University Students of English". Moderna Språk, LXVI:2, 117-123.

Svartvik, J, Frieberg, I, Linnarud, M and Thagg, U, 1973, A Typology of Grammatical Errors. Swedish-English Contrastive Studies, Report No 1. Lund University.

Svartvik, J (ed), 1973, Errata. Lund.

Thagg, U, 1973, English Grammatical Exercises Based on Error Analysis, Swedish-English Contrastive Studies, Report No 4. Lund University.

Thavenius, J, 1972, Stil och vokabulär. Lund.

Thorén, B, 1967, 10 000 ord för tio års engelska. Lund.

Ure, J, 1971, "Lexical Density and Register Differentiation". Applications of Linguistics ed by Perren, G E and Trim, J L M, 443-452. Cambridge.

Wilkins, D A, 1972, Linguistics in Language Teaching. London.

Winter, W, 1969, "Styles as Dialects". Statistics and Style ed by Doležel, L and Bailey, R W, 3-9. New York.

SWEDISH-ENGLISH CONTRASTIVE STUDIES

Department of English, Lund University

REPORTS

Report No 1 Svartvik, J., I. Frieberg, M. Linnarud, U. Thagg
A Typology of Grammatical Errors (1973).

Report No 2 Carlbom, U., Word Order Errors (1973).

Report No 3 Johansson, S., Partial Dictation as a Test of Foreign Language Proficiency (1973).

Report No 4 Thagg, U., English Grammatical Exercises Based on Error Analysis (1973).

Report No 5 Johansson, S., Swedish and English Phonemes: A Perceptual Study (1973).

Report No 6 Linnarud, M., Lexis in Free Production. An Analysis of the Lexical Texture of Swedish Students' Written Work (1975).